

AMENDMENT

In the Claims

The following Listing of Claims will replace all prior listings, and versions of claims in the application.

Listing of Claims

Claim 66 (new) A cellular expression system comprising:

a. a first integration cassette comprising

i. a first promoter operably linked to

ii. a first exchangeable reporter segment comprising a first scorable homeostatic reporter element, which comprises at least one scorable reporter gene, the first scorable homeostatic reporter element linked at its 5' end to a first frt recombinase recognition site, and at its 3' end to a second frt recombinase recognition site;

wherein the first integration cassette is capable of stable and random insertion into a first discrete genomic position in a host cell, thereby creating a recombinant cell population;

b. a first target cassette comprising a first exchangeable target segment comprising:

i. a third frt recombinase recognition site, capable of recognizing the first frt recombinase recognition site in the first integration cassette;

ii. a first target element; and

iii. a fourth frt recombinase recognition site, capable of recognizing the second frt recombinase recognition site in the first integration cassette;

wherein the first target element is linked at its 5' end to the third frt recombinase recognition site, and at its 3' end to the fourth frt recombinase recognition site; and

c. at least one rec element encoding FLP recombinase activity recognizing the f_{rt} recombinase recognition sites of a and b,

wherein introduction of the rec element and the first target cassette to the recombinant cell population results in site-specific substitution of the first exchangeable reporter segment with the first exchangeable target segment at the first discrete genomic position;

d. a second integration cassette comprising

i. a second promoter operably linked to

ii. a second exchangeable reporter segment comprising a second scorable homeostatic reporter element, which comprises at least one scorable reporter gene, the second scorable homeostatic reporter element linked at its 5' end to a fifth f_{rt} recombinase recognition site, and at its 3' end to a sixth f_{rt} recombinase recognition site;

wherein the second integration cassette is capable of stable and random insertion into a second discrete genomic position in the host cell; and

e. a second target cassette comprising a second exchangeable target segment comprising:

i. a seventh f_{rt} recombinase recognition site, capable of recognizing the fifth f_{rt} recombinase recognition site in the second integration cassette;

ii. a second target element; and

iii. an eighth f_{rt} recombinase recognition site, capable of recognizing the sixth f_{rt} recombinase recognition site in the second integration cassette;

wherein the second target element is linked at its 5' end to the seventh f_{rt} recombinase recognition site, and at its 3' end to the eighth f_{rt} recombinase recognition site; and

f. a FLP recombinase capable of recognizing the *frt* recombinase recognition sites of d and e;

wherein introduction of the second target cassette to the recombinant cell population results in site-specific substitution of the second exchangeable reporter segment with the second exchangeable target segment at the second discrete genomic position.

Claim 67. (new) The cellular expression system of Claim 66, in which the *rec* element is included in the first integration cassette.

Claim 68. (new) The cellular expression system of Claim 66 in which the *rec* element is included in the first target cassette.

Claim 69. (new) The cellular expression system of Claim 66 in which the scorable reporter gene encodes a scorable homeostatic reporter selected from the group consisting of CD4 and/or CD8.

Claim 70. (new) The cellular expression system of Claim 66 in which the host cell is selected from the group consisting of mammalian cells, yeast cells, and/or bacterial cells.

Claim 71. (new) The cellular expression system of Claim 66 in which the first integration cassette further comprises a polycistronic element.

Claim 72. (new) The cellular expression system of Claim 66 in which the first integration cassette further comprises a tag.

Claim 73. (new) The cellular expression system of Claim 66 in which the first target element further comprises a first target gene and a first selectable marker gene.

Claim 74. (new) The cellular expression system of Claim 66 in which the first target cassette further comprises a polycistronic element.

Claim 75. (new) The cellular expression system of Claim 66 in which the first target cassette further comprises a tag.

Claim 76. (new) The cellular expression system of Claim 66 in which the second integration cassette further comprises a tag.

Claim 77. (new) The cellular expression system of Claim 66 in which the second integration cassette further comprises a polycistronic element.

Claim 78. (new) The cellular expression system of Claim 66 in which the second target element further comprises a second target gene and a selectable marker.

Claim 79. (new) The cellular expression system of Claim 66 in which the second target cassette further comprises a polycistronic element.

Claim 80. (new) The cellular expression system of Claim 66 in which the second target cassette further comprises a tag.

Claim 81. (new) The cellular expression system of Claim 66 in which the first and second target elements each encode one subunit of a protein complex.

Claim 82. (new) The cellular expression system of Claim 81 in which the protein complex is an antibody.

Claim 83. (new) The cellular expression system of Claim 66 in which the first and second target elements encode one or more cloning sites.